REMARKS

As the original drawing of the invention did not seem to illustrate the device fully, in clear enough fashion to convey its nature, I have included along with the application a revision of the old drawings, the changes illustrated in red ink, plus have included some new drawings. Additionally the term list needed to be revised to match the drawings, therefore I have included the new term list.

Some functional or operational language is necessary in describing the structure of the invention due to the nature of the invention; the invention is a handle utilized by a hand and could, in a sense, be considered an artificial extension of a user's hand. The parameters governing the device's structural dimensions are inextricably intertwined with the fact that the invention is a hand utilized device and therefore must be physically within the capability of an average human hand to utilize the device.

The device was not anticipated by Eggert et al'193 due to the fact his device is "a cylindrical reversing member disposed adjacent to the working end of the handle coaxially with the bore for rotation relative to the shank and coupled to the ratchet mechanism for shifting between the forward and reverse ratcheting modes,"claim 1, while my device is different, being a handle used as a combination drive means and guide. Eggert does limit his device to having "a cylindrical spinner fixed to the shank coaxially therewith and having a maximum outer radius approximately the same as the predetermined radius, said reversing member being disposed between said spinner and the working end of the handle."claim9, and the spinner corresponds to the drive-wheel component of my device, but the spinner is merely a further limitation of Eggert's device and not the device itself, plus the drive-wheel of my device is merely a part of my device and not my

complete device. The Eggert device fails to anticipate my device by not having a slip ring type hand-held-guide which would be located girdling the shank adjacent ahead of the spinner nearer the tool's work end than the spinner. Therefore, as a wheel is part of an automobile but would not anticipate the automobile, the Eggert device doesn't anticipate the subject matter of my device as a whole, a handle assemble combining a driver-shank's drive- means with a slip ring type hand-held-guide.

The Martin'624 device includes "ratchet means in said body at the other end surface thereof"claim1, my device does not, however Martin's device has "and having drive means engageable with the other end of the shaft to rotate the shaft,"claim 1, my device does, but Martin's device has "said ratchet means including means extending beyond said other end surface of said body for manipulation of the ratchet means to enable selective rotation of the shaft in either of two directions, said other end surface of said body having a pair of spaced sockets therein; a tool adapter having opposite legs releasably received in the sockets in said body" claim 1, my device does not. And Martin further limits his device to " A hand operated rotary tool as in claim 2, wherein said body comprises two parts, said shaft being fixed to one of said body parts and rotatable relative to the other body part, said ratchet means being mounted in said other body part and selectively engageable with said other body part to effect rotation of the shaft in selected opposite directions depending on the adjustment of the ratchet means."claim 3. As claim 3 reveals, one half of Martin's device engages the shank by being fixed to the shank but the other half of Martin's device also engages the shank by way of an intrinsic ratchet mechanism. Martin's device has one body part which corresponds to the drive-wheel of my device by being fixed to the shank to engage the shank but Martin's device has no slip ring type hand-held-guide discretely freely rotatable unlimited in distance or direction relative the shank and other body parts, which if included with the Martin device would be placed girdling the shank ahead of, closer to the shank's

work end, than Martin's body parts. The Martin device doesn't anticipate the subject matter of my device as a whole and therefore does not anticipate my device.

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CORRECTIONS TO APPLICATION Serial No. : 10/022,625

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TITLE: "THE GRIPWHEEL DRIVER HANDLE ASSEMBLY
AND METHOD OF ATTACHMENT
TO OBTAIN UNIQUE PROPERTIES"

GRIPWHEEL DRIVER AND METHOD OF ATTACHMENT TO OBTAIN UNIQUE PROPERTIES

CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation in part of application serial number 09/309,640 filed May11,1999 entitled Gripwheel Driver Assembly and Method Of Use.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to devices by which Driver Tools are actuated and handled.

2. Description of Prior Art

Ratchet Drivers are designed to eliminate both the need for disengaging from a fastener to return for another leg of spinning a driver tool's handle and the need for reconfiguring the grip to begin application of another spin of the driver's handle, operations necessary for rotation of a fastener in absence of a ratcheting mechanism. By eliminating the aforementioned operations, the time saved can be applied to just rocking the driver's handle back and forth with the hand, thereby increasing the number of rotational cycles and speeding rotation of the fastener. However, due to the fact that many fasteners are not snug enough to generate the frictional resistance required to cause the ratchet mechanism to ratchet, the opposing hand must, at times, be used to supply the additional frictional resistance. When a means is not provided to keep the hand poised in readiness while waiting to apply the resistance, applied only during return strokes, the hand must continually reconfigure on each successive cycle to correctly apply the added resistance, thus consuming much of the time saved by using the ratchet driver. If it becomes necessary for the fastener's spin to be reversed for any reason, the user must stop, reset the ratchet mechanism for reverse, spin the fastener, then stop, reset the ratchet mechanism for forward, and resume

operation; the resetting of the mechanism wastes an additional period of time. Furthermore, since the hand which is already positioned on the side of the driver's shank to apply the additional resistance, could, but being it lacks an efficient means to engage the shank and therefore cannot effectively continue spinning of the fastener, the return cycle is left unproductive and its potential not fully realized. In addition, when a hand grips the shank from a location on side the shank to spin the shank, it is not quite in spacial orientation such that it can rotate a distance equal to the distance rotated by a hand gripping on a driver handle at rear of the driver, a rotating ratio of two to three. Therefore a driver would benefit from an attached component devised so that the user's hand could act a role of clutch mechanism which normally is needed as part of the tool in order to have the tool's shaft move easily within the hand to achieve an alternating two handed continuous spin of the shank. Having such an attachment would free tool space permitting installation of, plus offer as platform to support, a means for stepping up the movement of the shank relative the movement of a hand which, while positioned along side the shank, spins the shank. Finally, since rocking the driver's rear-handle back and forth makes it difficult to hold the tool steady upon a fastener, the tool would benefit from an efficient means to guide the fore-portion of the tool against the work while operating the tool.

SUMMARY OF THE INVENTION

It is therefore an object of the invention to equip a driver tool, a tool having both a handle and shank extending perpendicularly from the handle, with a handle assembly used as both a second-handle, for spinning the driver's shank, and a guide means, used to aid in guidance of both the driver-tool and a second operating hand. The assembly is comprised of two separate [shaped,] positioned, shaped, utilized, and functioning halves, a hand utilized, discretely independently-rotatable, [discrete] slip ring type hand-held-guide half, and a rotatable, hand-operated, driver-shank's, drive-means half called a drive-wheel herein. Both halves being attached

upon the tool utilizing a method of attachment prescribed herein to enable a one portion of a hand grasping upon the guide half of the assembly to direct the tool's shank toward the work and, through way of the gripping upon the guide, secure the one hand portion both linearly fixed relative, plus rotatable relative the shank as axis, and thereby position an unencumbered second portion of the hand to simultaneously, at will, grasp for holding or grasp for spinning the hand-operated drive-wheel-half of the assembly; and in addition, through the grasp of the drive-wheel also enable the drive-wheel to (1)be means for the hand's second portion to aid in guidance of the tool; (2)be means for the hand's second portion to supply additional frictional resistance for augmenting ratcheting of the driver when the driver is a ratchet type applied to loose-fitted-work; (3)be means for the hand's second portion to reverse the spin of the driver's shank without having to reset theratcheting direction of the driver and; (4)be means for the hand's second portion to continue productive spinning of the shank [a fastener] during the opposing hand's unproductive driver-handle return strokes. To accomplish the aforementioned results the said guide and drive-wheel are structured as two separate shaped, positioned, utilized, and functioning halves, both components structured and sized such that the distance from at lease one axially-parallel-outward-surface of the guide to axis of the guide is essentially the same as the distance from the overall axially parallel outward surface of the drive-wheel to axis of the drive-wheel, the driver-tool's shank being used as the axis running perpendicularly through both components, and both components are sized so that their widths, as placed [adjacent] in line on the shank as axis, are such that a hand is able to grasp the two components simultaneously, and the hand-held-guide's shank-parallel outward-surface is shaped to enable

holding in position on the guide any one portion of a hand grasping on the-shank-parallel-outward-surface of the said guide, while the drive-wheel's shank-parallel- outward-surface is shaped for ease of being, simultaneously along with the holding of the guide by a one portion of a

hand, intermittently gripped, held, spun, and released by the grasp of any second, remaining not utilized on the guide, portion of the same said hand; and additionally, the drive-wheel being a separate utilized and functioning half of the assembly, is shaped with bluntly curved surfaces substantially uniformly symmetrical about the axis of the wheel, so [to enable] enabling the wheel to rotate within the grasp of a releasing, not-utilized-on-the-guide, second portion of the said hand, such that the, not-utilized-on-the-guide, second portion of the said hand is able to remain in position [a positioning] for gripping the drive-wheel, and yet also is able to rotate about the drive-wheel near or lightly touching the drive-wheel's surface, due to anchoring through linkage with the said hand's one portion which remains utilizing the guide, the guide being in addition [being] discretely independently free-to-be-spun [freely rotatable]. The assembly's method of attachment comprises, having the slip ring type hand-held-guide slipped into place "loosely discretely, axially rotatably, girdling so as free from axially-rotatably-engaging the said tool's shank, the shank being used as axis for the guide's rotation by running perpendicularly through the guide, the guide linearly retained in the guide's location-on-the-shank, the location being adjacent-in-line-forward the drive wheel half the assembly, which-also-rings-the- shank, the guide thereby being nearer the shank's work end than the wheel, the guide being as, aforesaid girdling, is also being as [the shank of the driver-tool and separate the drive-wheel to result in the guide's being freely,] discretely independently [separately] free-[able]-to-be spun [spin], unlimited in distance and/or direction[, including] relative [both] the driver's shank as axis for the spin and relative the assembly's drive-wheel as a separate utilized and functioning half of the assembly, the guide's attachment being by way of having the shank inserted perpendicularly through a bore["], the bore larger in diameter than the shank and piercing through the guide", the shank inserted to a distance through the guide's bore [on the shank from the shank's work end such that the guide is girdling] so rearward of in line with the shank's work-end, and the shank may be inserted perpendicularly as aforesaid described, concentric the guide,

either by being inserted "alone" perpendicularly through the guide's bore, " the shank immediate the guide" or by being inserted perpendicularly together with, and concentric of, another component inserted perpendicularly through the guide's bore, the guide's bore about the other component at the same location lengthwise on the other component as where the shank is concentric the other component, "the shank being thus still as concentric the guide", [the guide being retained in the guide's location on the shank; and the location on the shank the guide girdles is also in line forward the work side of the drive-wheel, the drive-wheel being located] and the assembly's method of attachment also comprises having the drive-wheel-half-the-assembly " ringing so axially rotatably encircling [to encircle the shank but "]utilizing a manner of engaging [upon] to spin, the said tool's shank["], the shank as being both perpendicularly running through the drive-wheel and used as axis for the wheel's rotation"[to spin the shank], the wheel linearly retained in its location on the shank, the location [the wheel is ringing on the shank] being adjacent-[even further] in-line-rearward the guide-half-the-assembly and further away from [on] the shank's [shank] work-end than the guide [guide's location from the work end of the shank, the wheel being retained in the wheel's location on the shank;] which-also-girdles-the-shank, the wheel thereby being [and the location on the shank which the wheel rings is also in line] forward [the work end of the driver's handle, the work end of the driver's handle being] the fore-portion of the tool's handle and nearer the fore-portion than the guide, the tool's handle extending from plus engaging with the shank's portion emanating from opposite-the-side-of -the-assembly-from-the-side-facing-the-shank's-work-end, the handle being a part of the driver-tool [which is attached engaging upon and in line with the rear end of the tool's shank, the] for spinning [opposite shank-end from the tool's work end, to spin] the shank, the wheel being as, aforesaid-engaging, also being such that will spin the shank when spun while the guide is being such that will spin discretely independent the wheel when spun, thus the driver's handle is in line rearward the drive-wheel, the drive-wheel is in turn, in line rearward the guide, and the guide is in turn, in line

rearward the work end of the shank; amd both the gripwheel halves, the guide amd wheel, are attached advantageously positioned near enough each other between the fore-portion of the driver's handle amd the driver-tool shamk's [tool's] work end, such that a single hamd is able to simultaneously grasp both the guide and drive-wheel utilizing them as [bilaterally] bilongitudinally supporting halves. At least one retainer is placed, a retainer in front of the hamd-held-guide's side which faces the shank's work end [guide], to help retain the components in assembled operating position. The manner of the wheel's engagement with the shank to spin the shank cam be in either one of two ways, one by having the wheel ring the shank so as to encircle "fixed" to the shank or two by having the wheel ring the shank so as to encircle " rotatable relative the shank", the shank being as axis for the wheel's rotation therefore being as [by inserting the shank] inserted perpendicularly loosely fitted [fitting] through a bore, either immediate the wheel or by way of concentric another compoment, piercing through the drive-wheel, but [while] the wheel still engaging the shank, as by also being [is also] dressed to engage the shank through [by way of] linkage by way of [through] a drive-train to spin the shank. The means utilized to effect the drive-wheel's engagement with the shank cam be of any type including 1, having the shank's outside surface expanded and reshaped to form the drive-wheel component, by 2, dressing the inner surface of a bore through the drive-wheel with means which causes the wheel to grip the shank's surface so that the drive-wheel cam have the shank inserted through the bore with the means causing the shank to be fixed to the wheel, or by 3, having a geared-internal-drive-train attached to the wheel and linking the wheel so to engage the shank, the train comprised of a loosely girdling the shank beveled-driving-gear centered amd fixed to the drive-wheel's internal face, the driving-gear's teeth engaging a beveled-idler-gear able to spin being mounted at its center on an axle affixed to the driver handle's fore-portion, the same beveled-idler-gear having its teeth engaging a step-up-beveled-gear able to spin being mounted at its center on an axle affixed to the driver handle's fore-

79 portion, the step-up-beveled-gear engaging a ringing the shank while engaging the shank driven-
80 gear; and the aforementioned gearing arrangement can be repeated in bilaterally symmetrical
81 fashion on the shank's opposite side. Such a drive-train would be for increasing the speed of the
82 shank's spin relative the speed of the drive-wheel's spin, thus compensating for any difference in
83 the ability of one hand to spin the drive-wheel versus the other hand to spin the driver's rear-
84 handle, a difference due to spacial orientation. The manner of guide's being **[freely,]** discretely
84.5 independently **[separately]** freely-able-to-be-spun **[spin]**, unlimited in distance and direction,
85 including relative both the driver's shank and the assembly's drive-wheel, can be in either one of
86 two ways, having a bore through the guide sized so that the shank can be directly inserted loosely
87 fitted through the bore immediate **[immediately relative]** the guide, the shank thereby acting as axle
88 for the guide which, being a discretely separate component, is thus **[freely,]** discretely independently
89 **[separately,]** freely-able-to-be-spun **[spin]** unlimited in distance and direction relative the driver's
90 shank and the assembly's drive-wheel; or the guide can also be **[freely,]** discretely independently
90.1 **[separately]** freely-able-to-be-spun **[spin]** relative the shank and drive-wheel, by having another
91 component inserted loosely fitted through the guide's bore, the other component in turn ringing the
92 shank to encircle the shank. As for example, the bore could be sized so that an extension of the
93 drive-wheel's hub can be inserted loosely fitted into the guide's bore, the drive-wheel's hub would
94 then act as axle for the guide, the guide being a discretely separate component is thus **[freely,]**
95 discretely independently **[separately]** freely-able-to-be-spun **[spin]** relative the hub; however, the
96 shank as inserted through the hub also enables the guide to be **[freely,]** discretely independently
97 **[separately]** freely-able-to-be-spun **[spin as]** relative the driver's shank, **[plus]** relative the wheel's
98 hub, along with relative the drive-wheel, **[the wheel being]** a separate utilized half of the assembly
99 but unitized with the hub. Although the manner of attaching the guide to a tool can be either one of
100 the two ways, the means to effect the attachment as such can be only one, that is by having the

guide rotationally unengaged, not engaged by [either] direct [directly] and/or by indirect means [by linkage, with], to the shank as axis for the rotation.

As heretofore described the invention provides the driver tool with a second handle that is both a guide and second drive-means combined in an assembly form for handling the said tool more efficiently, augmenting operation of the said tool, and increasing the distance the tool's shank [shaft] can be turned during application cycles. The assembly's capability of providing as such being due to having the two separate yet bilaterally supporting halves, the forward half [of] the handle assembly, being the slip ring type hand-held-guide [which is] attached to spin discretely, independently-freely about the tool's shank, and the rear half [of] the [handle] assembly, being the hand-operated-drive-wheel which is attached to engage the shank for holding or spinning the shank, both halves securely positioned location fixed relative a driver-tools shank and configured to be separately yet simultaneously utilized by a single hand.

A preferred method of operating the assembly while attached upon a driver tool would be to have a user clutch the slip ring type hand-held-guide between a thumb and at least one finger of a hand to direct the tool's shank against work and, as needed, simultaneously bear down with the free portions of the same hand to grasp and hold or grasp and spin the shank-engaged, hand-operated drive-wheel for holding or spinning the shank. The grasping and holding or grasping and spinning may be timed to occur during return strokes of the user's other hand which operates the driver's handle. Clutching the hand-held-guide by a portion of a hand to guide the shank also serves to hold the unencumbered portions of the same hand in a position to utilize the drive-wheel. The assembly in whole form is effective for augmenting the ratcheting of a ratchet driver applied to loose fitted work, via [the] grasping and holding of the hand operated drive-wheel when the holding is timed to occur during return strokes of the driver's handle. But additionally, the assembly can be used with any driver fitted with the invention, to further spin the driver's shank during

application cycles[,] through spinning the hand operated drive-wheel on normally unproductive return-stroke-periods of the driver's-handle.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings identical components are identified with identical reference numbers and lettering:

FIG. 1 is an exploded perspective side view of the gripwheel driver assembly, the present invention[.], illustrating [The figure illustrates] shapes which can be used for the slip ring type hand-held-guide and hand-operated-drive-wheel which fall within the scope of the invention as described[.]; and in addition the [The] figure [also] helps illustrate [that] the method of attaching the gripwheel assembly [guide half the assembly, the method being to have], which includes having the guide [loosely] discretely [girdling the shank of a driver tool while separate the drive-wheel to result in the guide's being] independently, freely-[, discretely separately] able-to-be-spun [spin, unlimited in distance and direction, including relative both the] while girdling a driver's shank [used as axis for the spin and the drive-wheel being a separate utilized half of the assembly], and helps to illustrate by illustrating a one of the two alternate manners in which the guide can be [accomplished] enabled attachable in accordance with the required method [by either one of two manners], the manner illustrated in FIG. 1 being [by having] the slip ring type hand-held-guide is configured to loosely discretely girdle [girdling the shank of the] a driver-tool's [tool] shank, by being "immediate" of [immediately relative] the shank, through way of a bore through the guide sized so that the shank can be directly inserted loosely fitted through the guide's bore, the specific means illustrated as enabling [used to effect] the guide [guide's] to be freely able to be spun [spinning freely as said], and being[, as] there is only one possible, is having [to have] the guide not enabled to axially-rotatably [rotationally unengaged] engage [in every way relative] the shank [while linearly fixed in position

relative the shank.] inserted through the guide's bore by having the bore smooth enough and loose enough about the shank so as not to engage but yet permit the guide to be linearly retained in the location on the shank by way of a retainer such as the retainer ring illustrated in the FIG. 1; and the [The] FIG. 1 [also] further helps illustrate [that] the method of attaching [the drive-wheel half the assembly, the method being to] the gripwheel assembly, which includes having [have] the [drive-] wheel ringing so [encircling] to [engage] encircle engaging a driver's [to spin the] shank, [can be] by [either] illustrating one of the two alternate manners in which the drive-wheel is enabled attachable in accordance with the required method, the manner in FIG. 1 being having the wheel configured to ring a [the] shank "fixed-to-the-shank" thereby [thus] engaging the shank, the specific means [utilized in the FIG. 1 to effect said] enabling such fixed engagement being [to have the wheel fixed to the shank by] jagged surface ridges inside a [bore] piercing through the drive-wheel bore, the bore sized small enough for the drive-wheel to be tightly press fitted onto [and ringing the] a shank through [way of] the bore thereby ringing the shank, the ridges thus digging into the shank's surface [thereby] fixing the wheel to the shank, but any one of several means can be used to fix the wheel to the shank;

FIG. 2 is an exploded perspective side view of the gripwheel driver assembly, the present invention, illustrating the alternate manner to that illustrated in FIG. 1 for enabling [of having] the slip ring type hand-held-guide, half the assembly, to be attached [loosely girdle] girdling a driver's shank [, immediately relative the shank, and separate the assembly's drive-wheel] in accordance with the required method so [to result] resulting in the guide [guide's] being discretely independently freely- [, discretely separately] able-to-be-spun [spin unlimited in distance and direction, including relative both the driver's shank, as axis for the spin, and the drive-wheel, being a separate utilized half of the assembly], the alternate manner being the guide is enabled to loosely girdle a driver's [the] shank through way of " loosely-girdling-another-component" at a location upon the other component whereby the

shank is concentric the other component, the other component in turn being ringing the shank[,]; and [also illustrated in] the FIG. 2 [is] also illustrates a [the attachment method of the drive-wheel along with one of the two possible alternate engagement manners, the engagement manner illustrated in FIG. 2 being the same15a] fixed-to-the-shank manner [as utilized] similar to that illustrated in FIG. 1, for enabling the drive-wheel to be attached in accordance with the required method of attachment, but FIG. 2 additionally illustrates that although the drive-wheel is enabled to be attached as "fixed to a shank", it is possible for the specific means [utilized to effect engagement] of fixing the wheel to the shank to vary, as exemplified in the figure by having the means, while similar to that shown in FIG. 1, to additionally [differs from FIG. 1 by incorporating] incorporate as part of the means a unitized construction of the drive-wheel [14] with a hub[18 as part of the manner];

FIG. 3 is an unexploded, external, side plan perspective view of the gripwheel-driver-assembly of [as depicted in either] FIG. 1 and/or of FIG. 2, [but in FIG. 3 the gripwheel device is shown] showing the gripwheel's slip ring type hand-held-guide and hand operated drive-wheel adjacent-in-line such that a hand is able to grasp both components simultaneously, and reveals that the exploded depictions of both the FIGURES 1 and 2 are essentially the same device in overall structure and use when the components are assembled as utilized [rather than exploded];

FIG. 4 is a partial cross sectional front view of the gripwheel [driver] assembly of FIG. 2 [with] having the embodiment placed ready for operation [attached] on a phantom outlined portion of a driver [tool] tool's shank[.]; the figure reveals the assembly [assembly's drive-wheel] attached in accordance with the required method of attachment comprising having the guide half the assembly, "loosely discretely, axially-rotatably, girdling so as free-from-axially-rotatably-engaging the tool's shank, the shank being used as axis for the guide's rotation by running perpendicularly through the guide, the guide linearly retained in the guide's location-on-the-shank, the location being adjacent-in-line-forward the drive wheel half the assembly, which-also-rings-the-shank, the guide thereby

being nearer the shank's work end than the wheel, the guide as, aforesaid-girdling, is also being as discretely independently free-to-be-spun unlimited in distance and/or direction relative the driver's shank as axis for the spin and relative the assembly's drive-wheel as a separate utilized and functioning half of the assembly, the guide's attachment being by way of having the shank inserted perpendicularly through a bore, the bore larger in diameter than the shank and piercing through the guide"; and also revealed in FIG. 4, the attachment of the wheel-half-the-assembly as in accordance with the required method, comprising having the wheel "ringing so axially rotatably encircling, utilizing a manner of engaging to spin, the said tool's shank, the shank being both perpendicularly running through the wheel and used as axis for the wheel's rotation", the wheel linearly retained in its location on the shank, the location being adjacent in-line-rearward the guide-half-the-assembly and further away from the shank's work-end than the guide, which-also-girdles-the-shank, the wheel thereby being forward the fore-portion of the tool's handle and nearer the fore-portion than the guide, the tool's handle extending from plus engaging with the shank's portion emanating from opposite-the-side-of-the-assembly-from-the-side-facing-the-shank's work-end, the wheel being as, aforesaid-engaging, also being such that will spin the shank when spun while the guide is being such that will spin discretely independent the wheel when spun, thus as shown in FIG. 4, the driver's handle is in line rearward the drive-wheel, the drive-wheel is in turn, in line rearward the guide, and the guide is in turn, in line reward the work end of the shank; and the attachment of the gripwheel in accordance with the aforesaid method is illustrated in the FIG. 4 as accomplished **[engaging a shank]** by way of the manner and means in which the guide and drive-wheel are **[had been]** dressed to do so in FIG. **[FIGURES 1 and]** 2;

44FIG. 5A is a partial cross sectional front view of a gripwheel driver assembly **[of FIG. 2]** with the embodiment placed ready for operation mounted on a phantom outlined portion of a driver tool, but differs from FIGURES 1, 2 and 4 by **[using]** illustrating the only alternate manner,

to that illustrated in [Fig.] FIGURES 1, 2 and 4, of having the [hand-operated-] "drive-wheel" [14] enabled for attachment in accordance with the required method of attachment, the manner in FIGURES 1, 2, and 4 being as enabled to ring [ringing] a driver's shank "fixed directly to the shank" to encircle-engaged with so to spin [a] the shank[,]; the alternate manner in FIG. 5A being as enabled to ring a driver's shank, whether as immediate the shank or by way of ringing another component ringing the shank having no bearing on the outcome, loosely so able to be spun about the shank, the shank being as axis for the spin, while the wheel engages [engagement] the shank through linkage by a drive-train [15D] [15b in lieu of engagement by means of being fixed to the shank 15a] , the specific means utilized in FIG. 5A [to engage] for engaging the shank being a-geared-internal-drive-train;

FIG. 5 b is a partial-cross-section side view of the driver's rear-handle-fore-portion 25 that was depicted in the FIG. 5A front view and reveals the outside housing 40 of the fore-portion 25 plus the section that was cutaway, the cutaway section still shown but in phantom; [and] the figure [also] helps to further [reveals] illustrate the [other of the two] alternate [manners of attaching the drive wheel used along with the method of attaching] manner revealed in FIG. 5A for having the wheel engage the shank to spin the shank, the alternate[, the specific] manner [illustrated in FIG. 5 b] being [attaching the wheel, in accordance with the method of having the wheel ring to encircle-engaged] engaging [with a driver's shank,] by [the manner of] linkage through [using] a drive-train [for spinning the shank], the specific illustrated means [utilized to effect the engagement] being a geared-internal-drive-train; but [also] note that FIG. 5 b illustrates only components used in attachment of an assembly's drive-wheel, none are intrinsic parts of the assembly itself;

FIG. 6 [, shows] is a side plan perspective view of the gripwheel driver assembly [as] depicted in either FIG. 2, FIG. 4, or FIG. 5A but in FIG. 6 the gripwheel [assembly] is shown in assembled form attached unexploded on a driver-tool, the tool having [along with] both alternate

embodiments of its [the tool's] rear-driver-handle-fore-portion, 25 of FIG. 4 and 25 of FIG. 5A, one [driver's handle fore-portion embodiment is] used with the assembly's drive-wheel engaging the shank by [through utilizing the] manner of fixing the wheel to the shank, [and] the other [embodiment is] used along with the assembly's drive-wheel engaging a [the] shank by way [through utilizing the manner] of a drive-train, both fore-portions being depicted in phantom, one superimposed over the other, while [they are] attached to the rest of a driver's handle [27] shown in phantom;

FIG. 7 is a side plan view of a gripwheel driver assembly mounted on a driver tool [and] illustrating [illustrates] both the work end of the tool and the operating end of the tool, [plus] revealing [reveals] that the work end of the tool is [also] the work end of the driver-tool's shank, [also the FIG. 7 illustrates] the shank's work end in FIG. 7 also being [of the shank as] the free end of the shank; and additionally, the figure illustrates that the operating end of the tool is the operating end of the driver-tool's handle;

FIG. 8 is a bottom plan perspective view of the gripwheel driver assembly shown isolated from a driver tool [and reveals] revealing both the internal face [32] of the drive-wheel [14] and a bore [31] through the drive-wheel;

FIG. 9 is a top plan perspective view of the gripwheel driver assembly shown isolated from a driver tool [and reveals] revealing a bore [30] through the guide;

FIG. 10 is a side plan exploded view of the gripwheel-driver-assembly illustrating the last stage of attaching the device about a driver tool's shank whereby the slip ring type hand-held-guide [13] is [being] slipped into place loosely discretely girdling the shank [33] of a driver-tool by way of perpendicularly inserting the shank through a-bore-through-the-guide, the bore of a type as illustrated in FIG. 9;

FIG. 11 is a side plan view of a preferred type ratchet driver tool of the genre having a handle with a shank extending perpendicularly from the handle, and is the type to which a

gripwheel driver assembly would be attached, the tool [is] being shown isolated from the gripwheel-driver-assembly, and

FIG. 12 is a sequence of side plan views revealing the recommended hand operations for utilizing the gripwheel driver assembly [as] mounted on a driver tool and includes arrows denoting the direction of forces applied by the hand to [both] the assembly and through the assembly to the tool.

DETAILED DESCRIPTION OF THE INVENTION AND METHOD OF ATTACHMENT

FIG. 1, an exploded perspective side view of the gripwheel driver assembly, the present invention, shows [both] the assembly comprised of two halves, the slip ring type hand-held-guide half 13 and the hand operated drive-wheel half 14. As illustrated in the FIG. 1 [illustrates], the guide [13] and drive-wheel [14] halves are structured as [two] separate, positioned, shaped, utilized, and functioning component parts that are [components] used in combination as the assembly and are sized such that the distance from at lease one axially-parallel-outward-surface of the guide to axis of the guide is essentially the same as the distance from the overall axially parallel outward surface of the drive-wheel to axis of the drive-wheel, a [the] driver-tool's shank to be utilized [being used] as the axis by having the shank run perpendicularly through 30 and 31 of the guide and wheel, and both components are sized so that their widths, as placed in line on [the] a shank as axis, are such that a hand is able to grasp the two components simultaneously, and the hand-held-guide's shank-parallel-outward-surface, illustrated in the FIG. 1 by showing the guide's shank-parallel-outward-surface concavely shaped and sharply curved, is shaped to enable holding in position on the guide13 any [one] portion of a hand-grasping-on-the-shank-parallel-outward-surface of the said guide 13, while the drive-wheel's shank-parallel-outward-surface is shaped for ease of being, simultaneously along with the holding of the

guide 13 by a one portion of a hand, intermittently gripped, held, spun, and released by the grasp of any [second,] remaining not utilized on the guide, second portion of the same said hand, illustrated in the FIG. 1 by [showing] the wheel's shank parallel outward surface being convexly shaped and bluntly curved[;], and additionally, the drive-wheel 14, being a separate utilized and functioning half of the assembly, [is shaped with] has its bluntly-curved-shank-parallel-outward-surface [surfaces] substantially uniformly symmetrical about the axis of the wheel, to enable the wheel to rotate within the grasp of the releasing, not-utilized-on-the-guide, second portion of the said hand such that the, not-utilized-on-the-guide, second portion of the said hand [is] will be able to remain in position [a positioning] for gripping the [drive-]wheel[, and] yet also will be able to rotate about the drive-wheel, near or lightly touching the drive-wheel's surface, due to anchoring through linkage with the said hand's one portion which remains utilizing the guide, the guide [in addition] additionally being discretely independently free-to-be-spun [freely rotatable]. And also, as the FIG. 1 helps illustrate, [that] the guide 13 [can be] is enabled to be attached on a driver's shank in accordance with a required [by] method of attachment, the method comprising having the guide half the assembly 13, ["loosely discretely] girdling so as free from axially-rotatably-engaging a driver-tool's shank , the shank used as the axis for the guide's rotation, by having the shank " loosely discretely, axially-rotatably, running perpendicularly through a bore 30 through the guide, the guide linearly retained in its location-on-the-shank, the location being adjacent-in-line-forward the drive wheel half the assembly, which-also-rings-the-shank, the guide thereby being nearer the shank's work end than the wheel, the guide as, aforesaid-girdling, thereby being [freely,] discretely [separately] independently free [able] to be spun [spin,] unlimited in distance and/or direction [,including] relative the driver's shank as axis for the spin[,] and relative the assembly's drive-wheel as a separate [separately] utilized and functioning half of the assembly.[,] To be attached in accordance with the aforesaid required method the guide is enabled, such as illustrated in FIG. 1,

attachable by using one of only two possible alternate manners in which the guide [could] can be attached as aforesaid [said], the manner used in [the] FIG. 1 being [to have] by having the bore 30 through the [hand-held-] guide [, by way of a bore 30 through the guide] sized with a diameter large enough to permit the shank to be inserted loosely-fitted perpendicularly through the bore", so that the guide will [loosely] girdle loosely [immediately relative] "immediate of", as [so] to spin directly upon the-shank-as-an-axil, the specific means utilized effecting the guide's being freely able to spin, regardless of the manner[,] used, as being there is only one means, is to have the inner surface of the [guide] guide's bore axially-rotatably smooth enough while the bore is loose enough about the shank so that the guide will not rotationally engage [unengaged with] the shank-as-axil inserted through the guide's bore but yet [in all ways while] permitting the guide to still be linearly [fixed relative] retained in its location on the shank by a retainer such as retainer ring 16 FIG. 1. And lastly, as the FIG. 1 also helps to illustrate, [that] the hand operated drive-wheel14 [can be] is enabled to be attached on a driver's shank by the required method of attachment, which comprises having the wheel-half-the-assembly "ringing so axially rotatably encircling, utilizing a manner of engaging to spin, the driver-tool's shank, the shank being both perpendicularly running through the wheel and used as axis for the wheel's rotation", the wheel linearly retained in its location on the shank, the location being adjacent in-line-rearward the guide-half-the-assembly and further away from the shank's work end than the guide, which-also-girdles-the-shank, the wheel thereby being forward the fore-portion of the tool's handle and nearer the fore-portion than the guide, the tool's handle extending from plus engaging with the shank's portion emanating from opposite-the-side-of-the-assembly-from-the-side-facing-the-shank's work-end, the wheel being as, aforesaid-engaging, therefore is being such that will [to] spin the shank when spun, while the guide is being such that will spin discretely independent the wheel when spun. To be attached in accordance with the aforesaid required method the wheel is enabled, such as illustrated in FIG. 1, attachable by

[through] using one of only two alternate manners in which the drive-wheel can [could] be attached as [said] such, the [specific] manner used in FIG. 1 being the manner of directly fixing the wheel [fixed] to the shank so the wheel is ringing to [engage for spinning] encircle-engaged with to spin the shank, but the specific means utilized to effect such [the] fixed engagement [as said] can be any one of several [being], the one used in FIG. 1 being means of jagged ridges 15a inside a [bore15a] through-the-drive-wheel bore, the bore [being] sized small enough for the shank to be tightly press fitted through the bore, the jagged ridges thus digging into the shank's surface thereby fixing the wheel to the shank. Such direct engagement for the drive-wheel enables the wheel to directly spin the shank upon rotation of the wheel.

FIG. 2, another exploded perspective side view of the gripwheel driver assembly, the present invention, illustrates the alternate manner of enabling the guide to be attached, alternate to [that] the manner illustrated in FIG. 1, which when utilized in lieu of the manner illustrated in FIG. 1 still permits the guide to be attached in accordance with the required method of attachment [having the guide loosely discretely girdle a driver's shank, immediately relative the shank, and separate the assembly's drive-wheel to result in the guide's being freely discretely separately able to spin, unlimited in distance and direction, including relative both the said driver's shank being axis for the spin, and the assembly's drive-wheel 14 being a separate utilized and functioning half of the assembly], the manner being to have the guide 13 loosely [girdling the] girdle a shank through way of loosely girdling another component [that is] ringing the shank; and is illustrated in FIG. 2 by having the drive-wheel's hub extended, the hub-extension 18 inserted through a bore 30 sized through the guide 13 such that the hub18 can be perpendicularly inserted [extends] loosely fitted through the bore 30, the guide thereby can loosely girdle [girdles]the driver's hub 18 [freely], discretely independently [separately, able to spin] free-to-be-spun, unlimited in distance and direction relative the hub [18], but the hub18 in turn is enabled to [will] be attached ringing a driver's shank so encircling engaged

with [to encircle] the shank, as can be seem illustrated in FIG. 2 [,] by showing the hub having a bore 31 through the hub 18 to be used for inserting [insertion of] a driver's shank press fitted through the bore, the bore having internal surface ridges for digging into, fixing upon, and engaging the shank, thus the guide 13 [thereby], through way of a [the] driver-shank's insertion through the [hub] hub's bore 31, will, as in accordance with the required method of attachment, loosely discretely girdle the driver's shank, the guide [freely,] discretely [separately able] independently free-to-be-spun [spin], unlimited in distance and direction [,including] relative the [driver's] shank as [being] axis for the spin, [and] relative the drive-wheel's hub as axil for the spin, along with relative the assembly's drive-wheel being a separate utilized and functioning half of the assembly,[the specific means used to effect the guide's being freely spinning as said, regardless of attachment manner, regardless of the attachment manner, as there is only one means is to have] the guide [unengaged to the shank in all ways while] linearly retained, location fixed on [relative] the shank, by a retainer ring such as 17 of FIG. 2 clipped onto the end of the hub. Also [, the FIG. 2 illustrates the attachment method of the drive-wheel, which is to have the drive-wheel ring the shank, encircling-engaged with, to spin the shank; and the manner to engage the shank, one of two manners which can be utilized, the 67manner] illustrated in FIG. 2 is [being] the same ringing the shank fixed-to-the-shank thus engaging the shank manner-of-attaching-the-drive-wheel as was illustrated in FIG. 1, [that being to engage the shank by way of fixing the wheel to the shank to spin the shank,] being one of the two alternate manners which can be utilized so to have the wheel engage a shank in accordance with the required method [of attachment], but the specific means utilized [to effect engagement] enabling the wheel to be fixed to a shank as said can be any one of several and still be in accordance with the required method of attachment, for example by gluing the wheel onto-ringing a shank, or press fitting the wheel onto-ringing a shank as illustrated in FIG. 1, or expanding the shank itself to form the wheel onto-ringing the shank, etc. or for further illustration, by way of the means illustrated in FIG. 2, which [while] although similar to

FIG. 1[,] differs from FIG. 1 by incorporating the [making] use of a unitized drive-wheel and hub construction [of the wheel and hub], the hub18 being the component fixed to the shank in lieu of the wheel 14, but the hub18 is [uses] utilizing the same manner and means as [of] the wheel uses [wheel's engagement] in FIG. 1 for engaging a shank, [the manner being having] which is by being fixed to the shank through the means of a bore as like the bore through the wheel in FIG. 1 but piercing through the hub, [the means being] the bore having internal surface ridges which will be caused to dig into a shank's surface when [inside the bore and] the bore is tightly [sized small enough to be] press fitted [tightly] onto a shank [thereby causing the ridges to dig into the shank's surface], but as the hub will be fixed to the shank, so will the wheel be fixed to the shank and, by thus, [fixing] the wheel will also engage [both the hub and the hub's interconnected] the shank, all through interconnection of the wheel [to the shank] and hub by way of the unitized construction. A cut away of the hub illustrates the shank engagement means 15a.

FIG. 3, an external side plan perspective view of the gripwheel driver assembly, shows the gripwheel of either FIG. 1 or FIG. 2[,] as assembled and ready [for attachment] to be attached on a driver tool. As illustrated in figure 3, when either the gripwheel assembly of FIG. 1 or FIG. 2 is assembled for utilization [use] on a tool as in FIG. 3, both figures are depicting [depict] the same gripwheel [form, configuration,] overall 80structure, use, and[,] barring [the] various physical means [elements used] applied to attach the assembly, such as 30 and 31 of FIGURES 1 and 2; 15a of figures 1, 2, and 4; 16 of FIGURES 1 and 4; 17 of FIGURES 2[,] and 4; 15 D of FIG. 5A, is structured so to be enabled, in accordance with the-required-method-of- [same basic] attachment [method], attached upon a driver's shank, the shank positioned in the fashion of an axis for the assembly, [, that of attaching the slip-ring-type-hand-held-guide half the assembly to loosely girdling the shank of a driver-tool, the guide being discretely separately adjacent, in line forward of the drive-wheel, and reward of the driver-shank's work end, such that the guide is freely, discretely separately able to spin,

unlimited in distance and direction, including relative both the driver-tool's shank and the assembly's drive-wheel; and, attaching the other half the assembly, the hand-operated-drive-wheel, adjacent in line rearward of the guide, forward of a driver's handle, and girdling while engaging the shank, such that the shank will spin with spinning the wheel but the guide spins separate.

FIG. 4, containing a partial cross sectional front view of the gripwheel driver assembly of FIG. 2, shows the assembly placed ready for operation mounted on a phantom outlined portion of a driver tool. As illustrated in [the] FIG. 4, the required area-on-the-tool's shank 33 which is utilized for the device to function is between the driver-handle's fore-portion 25 and the work end of the shank 33, the work end of the shank in FIG. 4 also being [shown as] the shank's free end [of the shank33]. Additionally, as can be seen in FIG. 4, the gripwheel is attached on the driver's shank 33 in accordance with the required method of attachment, comprised of having the guide half the assembly 13, "loosely discretely, axially-rotatably, girdling so as free from axially-rotatably-engaging a driver tool's shank 33, the shank being used as axis for the guide's rotation by running perpendicularly through the guide 13, the guide linearly retained in the guide's location-on-the-shank as by a retainer such as retainer ring 17 of FIG. 4, the location being adjacent-in-line-forward the drive wheel half the assembly 14, which-also-rings-the-shank 33, the guide 13 thereby being nearer the shank's work end 28 FIG. 6 than the wheel 14, the guide being as, aforesaid-girdling, is also being as discretely independently free-to-be-spun unlimited in distance and/or direction relative the driver's shank as axis for the spin and relative the assembly's drive-wheel as a separate utilized and functioning half of the assembly, the guide's attachment being by way of the shank inserted perpendicularly through a bore 30 as of FIG. 2, the bore larger in diameter than the shank and piercing through the guide", the shank 33 FIG. 4 inserted to a distance through the guide's bore so reward of in line with the shank's work end 28 as of FIG. 6; and comprised of having the wheel-half-the-assembly 14 FIG. 4 "ringing so axially rotatably encircling, utilizing a

manner of engaging to spin, the said driver tool's shank 33, the shank being both perpendicularly running through the wheel 14 and used as axis for the wheel's rotation", the wheel 14 linearly retained in its location on the shank 33 by a retainer such as 16 of FIG. 4, the location being adjacent in-line-rearward the guide-half-the-assembly13 and further away from the shank's work end 28 as of FIG. 6 than the guide 13 FIG. 4, which-also-girdles-the-shank, the wheel thereby being forward the fore-portion 25 FIG. 4 or 6 of the tool's handle 27 as of in FIG. 6 and nearer the fore-portion than the guide 13, the tool's handle 27 extending from plus engaging with the shank's portion emanating from opposite-the-side-of-the-assembly-from-the-side-facing-the-shank's work-end 28 FIG. 6, the wheel being as, aforesaid-engaging, also being such that will spin the shank when spun while the guide is being such that will spin discretely independent the wheel when spun, thus the driver's handle is inline reward the drive-wheel, the drive-wheel is in turn, inline reward the guide, and the guide is in turn in line reward the work end 28 of the shank 33; and both gripwheel halves , the guide 13 and the drive-wheel 14 are attached advantageously positioned near enough each other between the fore-portion of the driver's handle 25 and the driver-shank's work end 28, such that a single hand is able to simultaneously grasp both the guide 13 and the drive-wheel 14 utilizing them as bilongitudinally supporting halves of the assembly; and the gripwheel in the FIG. 4 is shown attached in accordance with the aforesaid required method through utilizing both the manner of the guide's attachment and the manner of the wheel's attachment as is **[As also]** illustrated**[,]** in the FIG. 2, the guide's manner of attachment being having the hand-held-guide 13 loosely-girdling-the-shank-33 through way of "loosely-girdling-another-component", the other component being the drive-wheel's hub18, the girdling of the shank "through way of" being by way of having the shank 33 perpendicularly running concentrically through the hub 18 which as thus is inserted perpendicularly through the guide's bore 30, both the shank and the hub being concentric the same location on the guide as from within the guide's bore 30; and the wheel's manner of

attachment being having the drive-wheel 14 ringing so as "fixed" to the shank by way of the unitized construction of the [hand operated] drive-wheel 14 with the wheel's hub 18, the hub being fixed to the shank, thus both the hub and the wheel are [using a direct] engaging [means,] the shank by way of the hub's being fixed 15a [, fixes the drive-wheel] to the shank 33, and each of the aforesaid manners shown in FIG. 4, the manner of attaching the [hand-held-] guide [13, being attached discretely, separately, loosely girdling the shank, is thus able to be spun separately from the drive-wheel and shank] and the manner of attaching the wheel, are one of only two alternate manners for each, the guide and the wheel, of which may be utilized and still be attaching the guide and the wheel in accordance with the required method of attachment, the gripwheel thus appearing attached on a shank as illustrated in FIG. 4. And lastly as [Also] seen illustrated in FIG. 4, when the drive-wheel utilizes a manner-of-[means to engage] engaging the shank by being fixed to the shank, the engagement manner doesn't require any necessary configuration of [involvement with] the driver-handle's fore-portion 25.

FIG. 5A, a partial cross sectional front view of the gripwheel driver assembly [of FIG. 2], has the assembly attached ready for operation on a phantom outlined portion of a driver tool, but while FIGURES 1, 2, and 4 illustrate the manner of the drive-wheel's engagement with a shank to 103spin the shank as being by way of the wheel's ringing "fixed [fixing the wheel] to" [the shank] thus engaging the shank, the FIG. 5A illustrates the [other of the two] alternate to the manner [manners] illustrated in FIGURES 1, 2, and 4 [of having the hand-operated-drive-wheel 14 attached in according with the method of ringing to encircle-engaged with a shank to spin the said shank], the alternate manner being to have the wheel 14 FIG. 5A loosely ring the shank 33 FIG. 5A , the wheel's-ringing-the-shank being as either "immediate of the shank " or by way of "loosely ringing another component ringing the shank", while having the wheel 14 engaging [engage] the shank [by] through linkage [through] by way of a drive-train, the specific means utilized in FIG. 5A to effect

the engagement being [as said is by using] a geared-internal-drive-train 15D [15b in lieu of being fixed to the shank by being pressed tightly onto a shank while having surface ridges fixed to the wheel to dig into the shank's surface thereby fixing the wheel to the shank 15a]. As the FIG. 5A illustrates, the preferred component parts of a geared-internal-drive-train would be the following: a beveled driving-gear 20, loosely girdling the shank 33 but centered and fixed to, therewith directly-engaging [and therewith fixed 15a to] upon, as 15b FIG. 5A, the drive-wheel's internal face 32 shown in FIG. 8 [of the hand operated drive-wheel 14]; the beveled driving-gear 20 engaging a beveled [an] idler-gear 21 [engaging with the driving-gear 20] ,able to be spun mounted at its center on an axil affixed to the driver handle's fore-portion 25; the same beveled idler-gear 21 engaging a beveled step-up-gear 22 [engaging with the idler-gear 21] ,able to be spun mounted at its center on an axil affixed to the driver handle's fore-portion 25; the beveled step-up-gear engaging a driven-gear 23 which is [both engaging the step-up-gear 22 and] ringing to encircle so as [engaged with and thus] fixed 15c to and thus engaged with to spin the driver's [tool's] shank 33; and the gearing arrangement 24 which is a repeat of the aforementioned arrangement 21-22 which can be repeated in bilaterally [bilateral] symmetrical fashion on the shank's, driven-gear's, and driving-gear's opposite side. Also as illustrated in FIG. 5A and differing from figure 4, the driver-handle's fore-portion 25, due to [the drive-train's] involvement of the drive-train with the handle's [handle] fore portion, is configured to have the gears of the drive-train 15b [able to] spin [while mounted] on axils perpendicularly affixed to the [driver] handle's fore-portion.

119FIG. 5 b, a partial-cross-section side view of the driver's rear-handle-fore-portion 25 which is [was] depicted in [the] FIG. 5A as a front view, reveals the outside housing 40 of the fore-portion 25 and the section that was cutaway, the cutaway section still shown but in phantom; [also] the figure helps to further illustrate the alternate manner revealed in FIG 5A for having the wheel engage the shank to spin the shank, the alternate manner being through linkage using a drive-train,

the specific means illustrated being [reveals the other of the two alternate manners of attaching the drive-wheel, which is used along with the method of attaching the wheel, the specific manner illustrated in FIG. 5 b being attaching the wheel, in accordance with the method of having the wheel ring to encircle-engaged with a driver's shank, by the manner of linkage using a drive-train for spinning the shank, the specific means utilized to effect the engagement being] a geared-internal-drive-train, [;] As the figure [additionally] is revealing, [reveals that] the driver-handle's housing 40 can be configured so as to wrap behind the step-up-gear 22 for use as a platform to mount the idler gear 21, but note that the FIG. 5 b illustrates only components used in [the] attachment of an assembly's drive-wheel and none are intrinsic parts of the gripwheel assembly itself.

FIG. 6, a side plan perspective view of the gripwheel assembly shown in either FIGURES 1, 2, 3, 4, or 5A, illustrates the assembly attached on a phantom outline of a driver tool having both alternate embodiments of the rear-driver-handle-fore-portion 25 of FIG. 4 and 25 of FIG. 5A in phantom, one superimposed over the other, while they are attached to the rest of a driver's rear-handle 27 also shown in phantom. As illustrated by FIG. 6, being representative of all the embodiments[,] FIGURES 1, 2, 3, 4, and 5A, [of the gripwheel assembly] when the gripwheel assembly is assembled and attached on a tool all the embodiments have essentially the same overall form, configuration, structure, and use, barring various [the] physical means [elements used] utilized to attach the assembly, 30 FIGURES 1 and 2; 15a of figures 1, 2, and 4; 16 of FIGURES 1 and 4; 17 of FIGURES 2, and 4; 15 D of FIG. 5A, and all the embodiments while utilizing various physical elements to attach the assembly are attached with those elements by using the same required attachment method [, that of attaching the slip-ring-type-hand-held-guide to loosely girdling the shank of a tool discretely separately adjacent in line forward of the drive-wheel and reward of the driver-shank's work end, such that the guide is freely, discretely separately able to spin, unlimited in distance and direction, including relative both the driver's shank and the assembly's drive-wheel; and also

attaching the hand-operated-drive-wheel, other half the assembly, separately adjacent in line, rearward of the guide, forward of a driver's handle, and girdling while engaging the shank, such that the shank will spin with spinning of the wheel but the guide spins separate. Also illustrated in FIG. 6 is a ratchet driver direction setting means, 26 shown in phantom, but the setting means has no mechanical bearing on the gripwheel handle assembly].

FIG. 7, a side plan view of a gripwheel driver assembly mounted on a driver tool, illustrates both the work end 28 and operating end 29 of the tool. As revealed in [plus reveals that] FIG. 7, the work end of the tool is also the work end of the driver-tool's shank 33, [also the FIG. 7 illustrates] the work end of the driver's shank 33 in FIG. 7 also being [as] the free end of the shank [33]. Additionally revealed in FIG. 7, [the figure also illustrates that] the operating end of the tool is the operating end of the driver-tool's handle 25 of 27. Lastly, as revealed in FIG. 7, the orientation [Orientation] of the gripwheel's component parts as relative the tool's work end 28 and the tool's operating end 29 is such that the gripwheel is between 28 and 29 [is also revealed].

FIG. 8, a bottom plan perspective view of the gripwheel driver assembly[,] shown isolated from a driver tool, reveals the internal face 32 of the drive-wheel and a bore 31 through the wheel. As the FIG. 8 helps to reveal, both the [The] bore 31 and internal face 32 are drive-wheel configurations [is one means] which can be [used] utilized as part of the means for enabling the [drive-]wheel to be attached ringing a driver-tool's shank, the wheel encircling [to be] engaged with the said shank, as for example, the means [being] can comprise having the wheel's bore sized for insertion of the driver's shank while the inner surface of the bore is dressed to be fixed to the shank as 15a of FIG. 4, a manner of engaging the shank by fixing the wheel to the shank, or the means can comprise having the bore sized to loosely girdling the shank while the " internal face" 32 of the drive-wheel is [also] dressed to engage the shank as [15a of FIG. 4 or]15 D of FIG. 5A, a manner of linking the wheel as engaged to the shank through a drive-train. But note that the shank itself

could be expanded to form the drive-wheel component thereby, the wheel being of the shank, would engage the shank as fixed to the shank, such a manner of forming the wheel attached makes a bore irrelevant. Any of the aforementioned wheel attachment manners enables the wheel to be attached in accordance with the required method.

FIG. 9, a top plan perspective view of the gripwheel driver assembly[,] shown isolated from a driver tool, reveals a bore 30 through the slip ring type hand-held-guide. As the FIG. 9 helps to illustrate, a bore 30 is a constant element always part of any manner [The bore is one means which could be] used to enable [for] the guide [to] be attached loosely girdling the shank of [the] a tool so [and separate the drive wheel to result in the guide's being freely,] discretely independently [separately] freely-able-to-be-spun about the shank [spin,]. But as the FIG. 9 also helps to illustrate, the means utilized to enable the guide be freely able to be spun includes sizing of the bore so [unlimited in distance and direction, including relative both the driver's shank and the assembly's drive-wheel, the means being having the guide's bore sized] large enough with inner surface smooth enough to be loose about, as not to engage, a [for having the] shank perpendicularly inserted [loosely fitted] as spinable like an axis through the bore; and being the bore's sizing is to accommodate the diameter of the component girdled, the sizing also will depend upon the manner of the guide's girdling spinable the shank, as the guide may girdle either immediate the shank or by way of girdling another component girdling the shank, therefore the bore may be any one of various sizes accommodating the diameter of the girdled component, yet the guide will still be attached as girdling in accordance with the required method [such that the guide is discretely separately freely able to rotate about the driver's shank].

FIG. 10, a side plan exploded view of the gripwheel driver assembly is depicting the method of attaching the gripwheel components, the guide and wheel, to a driver tool. As the FIG. 10 illustrates, the slip ring type hand-held-guide 13 is slipped into place loosely discretely girdling the

shank 33 of the driver-tool and separate the assembly's drive-wheel 14 by a method resulting in the guide's being [freely,] "discretely independently [separately] freely-able-to-be-spun [spin,] unlimited in distance and direction [,including] relative [both] the driver tool, as the guide's only contact with the tool is with the driver's shank 33 being used as axis for the spin, and relative the assembly's drive-wheel 14, as being a separate utilized and functioning half of the assembly". The method illustrated [is] being by inserting the shank 33 through a bore 30, larger in diameter than the shank and piercing through the guide 13, to a distance on the shank from the shank's work end 28, as 28 in FIG. 7, such that the guide is girdling rearward of in line with the shank's work end [28], the guide being retained in the guide's location on the shank by a retainer such as retainer ring 16 FIG. 10; and the location on the shank the guide girdles is also in line forward the work side of the drive-wheel 14 FIG. 10, the drive-wheel [located] ringing to encircle the shank but ["] utilizing a manner of "engaging upon the shank 33 FIG. 10["] to spin the shank 33", the location the wheel is ringing on the shank being even further in line rearward on the shank than the guide's location from the work end 28 of the shank, [the wheel being retained in the wheel's location on the shank]; and the location the wheel is ringing on the shank [which the wheel rings] also is [also] in line forward the work-end 25 of the driver's handle 27, as 25 of 27 FIG. 7, the work-end of the driver's handle being the fore-portion 25 FIG. 10, of the handle 27, the handle being a part of the tool which is attached engaging upon and in line with the rear-end of the tool's shank 33, the rear end of the tool's shank being the opposite shank-end from the shank's [tool's] work-end 28 [FIG. 7], the attachment of the handle to the shank being to spin the shank 33, the wheel being retained in location rearward the guide by having the wheel as reward the retainer 16 FIG. 10 yet forward the fore-portion of the driver's handle, thus the driver's handle is in line rearward the drive-wheel 14, the drive-wheel is in turn, in line rearward the guide 13, and the guide is in turn, in line rearward the work end of the shank; and both the gripwheel halves, the guide and wheel, are attached advantageously positioned

near enough each other between the fore portion of the driver's handle 25 and the tool's work end 28, such that a single hand is able to simultaneously grasp both the guide and drive-wheel utilizing them as bilongitudinally [bilaterally] supporting halves.

FIG. 11[,] is a side plan view of a preferred type driver tool. As the FIG. 11 reveals, the tool is [of] from the genre of tools having a handle and a shank extending perpendicularly from the handle, the handle being for spinning the shank, and is [being of] the [type] genre of tools to which a gripwheel driver assembly would be attached. [, shows the] The tool is shown isolated from the assembly.

FIG. 12, a sequence of side plan views, shows the recommended hand operations for utilization of the gripwheel driver assembly as mounted on a driver tool. The FIG. 12 reveals the preferred hand positions and motions of the hand upon and about the assembly as relative the driver-tool, and the figure also includes arrows denoting direction of forces applied by the hand to the assembly and through the assembly to the tool.

Referring now to FIGURES 1, 2, 3, 4, 5A, 6, 7, 10, and 11, the gripwheel driver assembly FIG. 3 [, as in FIGURES 1 and 2], being a means for guiding and actuating, comprises both a slip ring type hand-held-guide-half 13 and a hand-operated drive-wheel-half 14, each used in conjunction with the other, both being attached as the assembly upon [to] a driver-tool of [the] genre [of type show] shown in FIG. 11, such that the assembly is located between the [28 FIG. 6] work end 28, as in FIG. 6, of the driver tool's shank 33 FIG. 6 and the work end of the [driver-handle's] fore-portion [, for example] 25 [FIG. 6] of the driver tool handle 27 in FIG. 6. The hand-held-guide half [13 FIG.10 of] the assembly 13 as in FIG. 10 is attached to the driver-tool by method of loosely discretely, axially rotatably, girdling so as free from axially-rotatably-engaging the driver tool's shank 33 [FIG. 10] as axis, the guide linearly retained in its location-on-the-shank, the location being adjacent-in-line-forward the drive wheel half the assembly 14 FIG. 10, which-

also rings the shank, the guide thereby being [of the tool and separate while] nearer the [tool's] shank's work end 28 FIG. 10 than the [drive-]wheel [half the assembly 14 FIG. 10], [such that] the guide being as aforesaid girdling, also being [13 FIG 10 is freely,] discretely independently [separately able] free to be spun [spin], unlimited in distance and/or direction[, including] relative [both] the driver's shank 33 as axis for the spin and relative the assembly's drive-wheel 14 as a separate utilized and functioning half of the assembly, and the manner of being attached as said is either by [directly] loosely girdling [immediately relative] immediate the shank through way of a bore 30 piercing through the guide and sized for insertion of the shank, as bore 30 in FIG. 10, or by indirectly loosely girdling the shank through [by] way of a bore 30 through the guide sized for loosely girdling another component 18 as of FIG.2 which willl ring [rings] the shank 33 FIG. 10, and the means utilized to effect the guide's being freely able to be spun [spin separate] is that of having the [guide] guide's bore configured large enough with inner surface smooth enough so as not to rotationally engage either directly or indirectly [unengaged in any way] with the shank inserted as an axis perpendicularly through the bore [while] yet have the bore still able to permit the guide to be [linearly] fixed linearly relative the shank as by a retainer such as retainer ring 16 FIG. 10 or 17 FIG. 2 . The drive-wheel 14, as in FIG. 10, is attached to the driver-tool by method of ringing so encircling engaged with a driver-tool's [the] shank 33, the wheel being linearly retained in its location on the shank, the location being adjacent in line [while] rearward the [guide's] guide-half-the-assembly and further away [location] from the shank's work end 28 FIG. 10, than the guide 13, which also girdles the shank, the wheel thereby forward the fore-portion 25 of the tool's handle 27 as in FIG. 7 and nearer the fore-portion 25 than the guide, the tool's handle 27, extending from plus engaging with the shank's portion emanating from opposite the side of the assembly from the side facing the shank's work end 28 FIG. 10, the wheel being as aforesaid engaging, also being such that willl [the wheel is ringing the shank to encircle-engaged with to] spin the shank 33 when spun

while the guide is being such that will spin discretely independent the wheel when spun, and [either in] the manner [of] in which the guide is attached as said is either by directly engaging the shank by girdling fixed to the shank or by engaging the shank through [manner of] linkage utilizing a [by way of a] drive train, the wheel being loosely-girdling rotationally-relative the shank as axis, and the means [utilized] to effect the wheel's engagement being any of several [available], one for example being a jagged bore through the wheel sized to be press fitted about the shank 15a FIGURES 1, 2 and 4, [thus] engaging by [through] being directly fixed to the shank to spin said shank, or another being a geared internal drive train 15D in FIG. 5A linking a [the fixed attachment of the] ringing-loosely-the-shank drive-wheel 14 to a [driving-gear 15b with the] ringing-directly-fixed-to-the-shank [attachment of a] driven-gear [to the shank]15c to spin the said shank, [such as the 15 D drive-train in FIG. 5A] either means resulting [to result] in the wheel's engaging the shank to spin the said shank[.], and both [Both] the guide13 and drive wheel 14 are positioned [located] such that [they are] near enough each other so that a single hand is able to utilize them simultaneously. The linear movement of the guide 13 relative the shank 33 is fixed by a retainer such as 16 FIG. 1 or 17 FIG. 2 while [and] the linear movement of the drive-wheel 14 [is also fixed] relative the shank 33 is fixed [either] by either the wheel's [its] engagement method upon the shank 33 which can fix the wheel [it] to the shank 33, or by the wheel's [its] positioning, such as in FIG. 6, located rearward-the-guide but also reward the retainer 16 FIG. 6 and yet forward the fore-portion [being sandwiched between the fixed position] of the driver's [main] handle [fore-portion] 25 [and hand-held-guide 13 which is linearly fixed in position as by retainer, such as16 and17].

Referring now to FIGURES 7, 11 and 12, using a preferred method of operating the gripwheel driver assembly upon a ratchet driver tool, the operator would first grasp the slip ring type hand-held-guide 13 FIG. 7 between a thumb and at least one finger 38 FIG. 12, the first portion of a [hand 36, the] hand-one 36 FIG. 12, [first portion 38 of FIG. 12,] to guide the driver's

shank 33 FIG. 7 toward [the] work, FIG. 12 OPERATION 1[,] and, thereupon, the operator would keep the first hand portion 38 upon the guide to use the first hand portion for guiding and holding the shank against work, and at the same time the user would rock [rocks] the driver's rear handle 27 FIG. 7 [27 FIG. 12] counter clockwise using the second [other] hand 37 FIG. 12 , a [the motion counter clockwise being a rear handle] return stroke by the second hand in preparation for productive rotation by the second hand, the stroke continuing until the second [other] hand reaches [its] maximum rotational extension, FIG. 12 OPERATION 2. While the second [other] hand 37 FIG. 12 is moving to its maximum counter clockwise extension, the operator bears down and grips the 14 FIG. 7 hand-operated-drive-wheel 14 with the hand-one's [a] second portion 39 FIG. 12 [of hand one], which remained as not-utilized-for-holding-onto-the-guide 13 [39 FIG 12], so as to rock the shank-engaged drive-wheel 14 clockwise thus spinning the shank 33 clockwise, FIG. 12 OPERATION 2. The hand one portion 38 FIG. 12 which is holding onto the guide is kept on the guide and continues to remain on the guide during all operations allowing the guide to fulfill another role which is that of being means to anchor the hand-one 36 FIG. 12 in just such an advantageous position to have the hand one's second portion 39 not utilized [used] on the guide 13 [39 FIG. 12] grasp to spin as needed the shank engaged drive-wheel 14 so to spin the shank 33. Note that when the assembly is mounted on a ratchet-driver-tool, such as the tool of FIG. 11, and the tool is used on loose fitted work, just holding the drive-wheel 14 FIG. 7 during return strokes of the rear-shank-handle 27 FIG. 7 will augment the ratcheting action of the driver. Spinning of the drive-wheel 14 will, on any driver fitted with the assembly, further spin the shank if the spinning is applied during normally unproductive return-stroke periods of the driver's rear handle 27 FIG. 7. Continuing to describe the gripwheel operation, when both [the] hands of the operator [operator's hands] reach maximum rotated extensions in their respective rotating directions, FIG. 12 OPERATION 2, the operator would release the hand-one second-portion [portions] 39 FIG. 12

from gripping upon the drive-wheel, FIG. 12 OPERATION 3, so releasing the drive-wheel 14 [, FIG. 12 OPERATION 3,] and, thereupon, reverse the 37 FIG. 12 OPERATION 3, second hand's rotation of [the other hand 37 FIG. 12 gripping on] the driver's rear-handle[,] so to rock [rocking the other hand] the handle clockwise, the second [other] hand 37 now [is] continuing the clockwise spin of the shank by clockwise spinning of the rear-handle 27 which is now engaging [attached to] the shank through the driver's ratchet means. Both the [The] hand one's second-portion which [that] is released away from the drive wheel, [39] along with the hand one's first-portion which [that] remains on the guide [38], now freely reverse direction bringing along in rotation the slip ring type hand-held-guide 13 which is still held by the hand one first portion[,] and they [all] rock counter clockwise about plus above the clockwise-moving drive-wheel moving as [which moves] due to linkage through [by way of the engagement with] the shank being spun by the second hand's [other hand, the shank spun by the other hand through said hand's] spinning of the driver's rear handle [which is engaged with the shank], FIG. 12 OPERATION 4[, both]. The hands continue moving in their respective directions [continuing their operations] until all arrive at their maximum extensions, the starting position FIG. 12 OPERATION 1[.], whereupon the [. The] hands [then] begin another cycle of gripwheel plus driver-tool use.

Referring now to FIG. 1, FIG. 3, FIG. 5A, and FIG. 6, the method of attaching the assembly's drive-wheel half 14 FIG. 3 comprises having the wheel ring a driver-tool's shank to engage the shank 33 FIG. 6. In using the said attachment method, the manner in which the wheel rings the shank to engage [engages] the shank can be in either one of two ways, one being ringing the shank to engage [engaging] the shank by being fixed to the shank, as for example by using 15a FIG.1 a jagged bore through the wheel to be press fitted about the shank fixing the wheel to the shank 33 FIG. 6, but note, [. However] the means used to effect the wheel's being fixed to the shank thus to engage [engaging] the shank can be any one of many, for example another means would be

[glue] to adhere the wheel 14 to the shank by glueing or another means would be to have the shank itself expanded to form the drive-wheel component. Now referring back to the manner of the wheel's attachment, the other manner in which the wheel can ring the shank to engage the shank is to, as while either ringing the shank loosely as rotational immediate of the shank or ringing the shank loosely as rotational of the shank through way of ringing another component ringing the shank, have the wheel engage the shank through linkage by way of a drive-train such as the geared internal drive-train 15D in FIG. 5A. The method of attaching the assembly's slip ring type hand-held-guide 13 FIG. 1 comprises having the guide [girdle] loosely and discretely girdle the shank of a [the] driver-tool and separate the assembly's drive-wheel so as to result in the guide's being [freely,] discretely independently [separately] freely-able-to-be-spun [spin], unlimited in distance and direction [, including] relative [both] the driver's shank as axis for the spin and the assembly's drive-wheel as a separate utilized and functioning half of the assembly. In using the said attachment method, the manner in which the guide is enabled to be as said freely spun [spin freely] can be in either one of two ways, one way being to have the guide loosely girdle the shank, [the guide immediately] immediate of [relative] the shank, as for example by utilizing 30 FIG. 1, a bore through the guide used for having the driver's shank, alone, inserted [directly] perpendicularly through the bore, the shank loosely fitted so rotational relative the guide; and the other way being to have the guide loosely girdle the shank by way of having the shank inserted through another component, as for example, by utilizing a bore 30 FIG. 3 through the guide, the bore sized and used for having the driver's shank inserted while the shank is also inserted perpendicularly through the other component, both inserted perpendicularly as one about the other through the bore, the shank still loosely fitted rotational relative the guide, thus the guide would be able to be spun [spin] freely discretely independently [separately] upon the shank [as axil]. However, the means used to effect having the guide as said [guide's being] able to be spun [spin] freely about the shank is only one,

that being having the guide attached on the shank as not able to engage the shank rotationally, either in direct or indirect manner, by having the guide's only contact means with the shank, the bore, configured large enough such that the guide will be loose about the shank, resulting in a complete unbroken separation between the guide and shank, the separation so smooth and circular about the shank as not to enable the guide and shank to engage [to have the bore unengaged, not engaged directly nor through linkage, with the shank]. And lastly, the method of attaching both the guide and wheel comprises their being linearly retained in their respective locations on the shank as aforesaid functional. In using the said attachment method, the manner in which the guide and wheel are retained can be any of several, but for example, being that the components are already retained on one side relative shank, by way of the driver's handle already being attached there, the components can be retained on the other side relative the shank by means of retainer rings such as 16 and 17 of FIG. 6.

Referring now to FIGURES 5A, and 8, the second manner, other than the previously mentioned manner, of having the drive-wheel engage the shank through being fixed to the shank would be for the drive-wheel to engage the shank through linkage by way of a drive train, as for example the15D in FIG. 5A geared-internal-drive-train having a beveled-driving-gear 20 FIG. 5A, loosely girdling the shank 33 FIG. 5A, but centered and engaged, 15b FIG. 5A, upon the drive-wheel's internal face 32 FIG. 8 so as to be fixed upon the wheel14 FIG. 5A, the beveled-driving-gear 20 FIG. 5A engaging a beveled-idler-gear 21 FIG. 5A able to spin by being mounted at its center on an axil affixed to the driver-handle's fore-portion 25 FIG. 5A, the same beveled-idler-gear 21 FIG 5A engaging a step-up-gear 22 FIG. 5A, able to be spun by being mounted at its center on an axle affixed to the driver-handle's fore-portion 25 FIG. 5A, the second-beveled-step-up-gear engaging a girdling-while-directly-engaged 15c Fig 5A with-the driver's-shank 33 FIG. 5A driven-gear 23 FIG. 5A, and the aforementioned gearing arrangement 21 thru 22 of FIG. 5A can be repeated 24 of FIG. 5A in bilaterally symmetrical fashion on the shank's, driven-gear's,

and driving-gear's opposite side.

Referring now to FIG. 2, FIG. 3, and FIG. 6, the second manner, other than the previously mentioned manner of having the assembly's slip ring type hand-held-guide13 of FIG. 3 loosely discretely girdle the shank of a driver-tool and separate the assembly's drive wheel 14 to result in the guide's being freely, discretely separately able to spin, unlimited in distance and direction, including relative the shank as axis 33 FIG. 6 and drive-wheel 14 being a separate utilized half of the assembly, is to have the 30 FIG. 2 bore through the guide 13 sized large enough to be loosely fitted about another component which rings to encircle the shank 33, for example the bore 30 through the guide 13 FIG. 2 could be sized large enough to be loosely fitted girdling an extension of the drive-wheel's hub18 FIG. 2 thereby the guide would be freely, discretely separated able to spin unlimited in distance and direction relative the extension of the drive-wheel's hub18 FIG. 2; however, the hub 18 FIG. 3 having been constructed to ring a shank so to encircle engaged with the shank will in turn enable the discretely attached guide13 FIG. 2 to be freely, discretely separated able spin relative the shank, relative the hub, and plus relative the hub's attached wheel.

Referring to FIGURES 6 and 12, the operation of the assembly [on a ratchet driver such as depicted in figure 6 remains basically the same whatever] isn't affected by the setting of a [the] driver's ratchet-direction setting means 26 FIG. 6 as the hand is [still] merely lifted off the drive-wheel 14 FIG. 6 during drive-wheel return strokes[, the] The hand's operating position and stance [are] being maintained during the lift via [the] anchoring of the hand by [the] griping of the hand's [one] first portion 38 FIG. 12 upon the slip ring type hand-held-guide 13 FIG 6. The hand-held-guide 13 FIG. 6 supports the [hand] lifting of hand one's second portion 39 FIG. 12 [plus] and the return stroke operation through having been mounted rotationally free yet linearly, as by retainers such as 16 and 17 of FIG.6, fixed relative the shank [by retainer such as 16 and 17 of FIG. 6], the guide[,as] being so retained as rotational in location relative the shank, can be spun [will spin] in concert with

328 any one portion of a hand 38 FIG. 12 gripping it, guiding and freeing any unencumbered second
329 portion of the hand 39 FIG. 12, which doesn't grip upon [not gripping on] the guide, to move
329.1 rotationally as needed, [to] bear down, [and] grip, [and] hold, or grip [and] plus spin the drive-wheel
330 [as needed] 14 FIG 6.

331 It should be noted and understood that drawings and descriptions herein are illustrative of
332 the gripwheel assembly's appearance and means both depicted and described herein to effect the
333 gripwheel's method of attachment are illustrative of types which could be utilized; therefore if a
334 gripwheel assembly's structure is within the scope of the prescribed structure as hereinafter
335 claimed and attachment of the gripwheel components are within the scope of the attachment
336 method as hereinafter claimed, them various materials, colors, and embodiment shapes plus various
337 means to effect attachment of each gripwheel component may be used without departing from the
338 spirit and scope of the invention as hereinafter claimed.

WHAT IS CLAIMED:

-- 1. **[Both a]** A handle assembly utilized attached on a driver tool **[and]** along with the method of attaching the assembly to the driver-tool, the tool being of a genre already possessing a handle and a shank extending perpendicularly from the handle, the tool's handle being able to spin the tool's shank, the tool's shank being used as an-axis-perpendicularly-inserted-through-components-of-the-assembly for rotation of the assembly components, the assembly comprising two separate **[shaped,]** positioned, shaped, utilized, and functioning halves, a hand utilized, discretely independently-rotatable, driver shank's slip ring type hand-held-guide half, and a rotatable, hand-operated, driver-shank's, drive-means half referred to herein as a drive-wheel, both components structured and sized such that the distance from at lease one axially-parallel-outward-surface of the guide to axis of the guide is essentially the same as the distance from the overall axially parallel outward surface of the drive-wheel to axis of the drive-wheel, the driver-tool's shank being used as **[the]** axis running perpendicularly through both components, and both components **[are]** sized so that their widths, as placed in line on the shank as axis, are such that a hand is able to grasp the two components simultaneously, and the hand-held-guide's shank-parallel outward-surface is shaped to enable 13holding in position on the guide any one portion of a hand grasping on the-shank-parallel-outward-surface of the said guide, while the drive-wheel's shank-parallel-outward-surface is shaped for ease of being, simultaneously along with the holding of the guide by a one portion of a hand, intermittently gripped, held, spun, and released by the grasp of any second, remaining not utilized on the guide, portion of the same said hand; and additionally, the drive-wheel being a separately utilized and functioning half of the assembly, is shaped with bluntly curved surfaces substantially uniformly symmetrical about the axis of the wheel, so enabling **[to enable]** the wheel to rotate within the grasp of the releasing, not-utilized-on-the-guide, second portion of the said hand, such that the, not-utilized-on-the-guide, second portion of the said hand is able to remain in position

[a positioning] for gripping the drive-wheel, and yet also is able to rotate about the drive-wheel near or lightly touching the drive-wheel's surface, due to anchoring through linkage with the said hand's [one] first portion which remains utilizing the guide, the guide being in addition [being] discretely independently free-to-be-spun [freely rotatable]; the assembly's method of attachment comprising, having the slip ring type hand-held-guide slipped into place "loosely discretely, axially-rotatably, girdling so as free from axially-rotatably-engaging the said tool's shank, the shank being used as axis for the guide's rotation by running perpendicularly through the guide, the guide linearly retained in the guide's location-on-the-shank, the location being adjacent-in-line-forward the drive wheel half the assembly, which-also-rings-the-shank, the guide thereby being nearer the shank's work end than the wheel, the guide being as , aforesaid girdling, is also being as [of the driver-tool and separate the assembly's drive-wheel to result in the guide's being freely,] discretely [separately able] independently free-to-be-spun [spin,] unlimited in distance and/or direction [, including] relative [both] the driver's shank as axis for the spin[,] and relative the assembly's drive-wheel as a separate utilized and functioning half of the assembly, the guide's attachment being by way of having the shank inserted perpendicularly through a bore["], the bore larger in diameter than the shank and piercing through the guide", the shank inserted to a distance through the guide's bore [on the shank] so reward of in line with the [from the] shank's work end [such that the guide is girdling rearward of in line with the shank's work end, the guide being retained in the guide's location on the shank; and the location on the shank the guide girdles is also in line forward the work side of the drive-wheel], and the assembly's method of attachment also comprising having the drive-wheel-half-the-assembly [being located] "ringing so as axially rotatably encircling, [to encircle the shank but "] utilizing a manner of engaging [upon] to spin, the said tool's shank["], the shank as being both perpendicularly running through the wheel and used as axis for the wheel's rotation" [to spin the shank], the wheel linearly retained in its location on the shank, the location [the wheel is ringing on

the shank] being adjacent-[even further] in-line-reward the guide-half-the assembly and further away from [on] the shank's [shank] work-end than the guide, [guide's location from the work end of the shank, the wheel being retained in the wheel's location on the shank;] which also-girdles-the-shank, the wheel thereby being [and the location on the shank which the wheel rings is also in line] forward [the work end of the driver's handle, the work end of driver's handle being] the fore-portion of the tool's handle and nearer the fore-portion than the guide, the tool's handle extending from plus engaging with the shank's portion emanating from [, the driver's handle being a part of the driver-tool which is attached engaging upon and in line with the rear end of the tool's shank, the] opposite-the-side-of-the-assembly-from-the-side-facing-the [shank end from the driver]-shank's-work-end, the [driver's handle being for spinning the shank] wheel being as aforesaid-engaging, also being such that will spin the shank when spun while the guide is being such that will spin discretely independent the wheel when spun, thus the driver's handle is in line rearward the drive-wheel, the drive-wheel is in turn, in line rearward the guide, and the guide is in turn, in line rearward the work end of the shank; and both the gripwheel halves, the guide and wheel, are attached advantageously positioned near enough each other between the fore-portion of the driver's handle and the driver-shank's work end, such that a single hand is able to simultaneously grasp both the guide and drive-wheel utilizing them as [bilaterally] bilongitudinally supporting halves, and at least one retainer is placed, a retainer in front of the hand-held-guide's side which faces [is facing] the shank's work end, the retainer to help retain the components in assembled operating position.

-- 2. A handle assembly as described in claim 3 for use on a driver-tool wherein the said drive-wheel half of said auxiliary handle[,] is attached in accordance with the method of attachment described in claim 3 comprising having the guide "ringing so as axially rotatably encircling, ["]utilizing a manner of engaging [upon] to spin the said tool's shank["], the shank being as both perpendicularly running through the wheel and used as axis for the wheel's rotation", engages

upon the shank by manner of ringing the shank to encircle fixed upon the shank[, thereby engaging upon the said shank].

-- 3. A handle assembly as described in claim 3 for use on a driver-tool wherein the said drive-wheel half of said auxiliary handle[,]is attached in accordance with the method of attachment described in claim 3 comprising having the guide "ringing so as axially rotatably encircling, ["]utilizing a manner of engaging [upon] to spin the said tool's shank["], the shank being as both perpendicularly running through the wheel and used as axis for the wheel's rotation", engages upon the shank through linkage by way of a drive-train, the train's driving component being fixed to said drive-wheel and the train's driven component being ringing to encircle fixed upon the shank[, thereby the wheel engages the shank through linkage by way of the train].

-- 4. A handle assembly as described in claim 3 for use on a driver-tool wherein the said slip ring type hand-held-guide half of said assembly is attached in accordance with the method of attachment described in claim 3 comprising having the guide "loosely discretely, axially-rotatably, girdling so as free from axially-rotatably-engaging the said tool's shank, the shank being used as axis for the guide's rotation by running perpendicularly through the guide, the guide linearly retained in the guide's location on the shank, the location being adjacent-in-line-forward the drive wheel half the assembly, which also rings the shank, the guide thereby being nearer the shank's work end than the wheel, the guide being as, aforesaid girdling, also being [of the tool and separate the drive-wheel to result in the guide's being freely,] discretely [separately able] independently free-to-be-spun [spin,] unlimited in distance and/or direction[, including] relative [both] the driver's shank [and drive-wheel,] as axis for the spin and relative the assembly's drive-wheel as a separate utilized and functioning half of the assembly, the attachment being by having the shank inserted perpendicularly through a bore, the bore larger in diameter than the shank and piercing through

63.2 the guide", does loosely girdle [girdles] the shank as by manner of having the guide[,] loosely

64 discretely girdling as immediate of [immediately relative] the shank-inserted-through-said- [the]

65 bore-through-the-[said] guide.

66 -- 5. A handle assembly as described in claim 3 for use on a driver-tool wherein the said slip

67 ring type hand-held-guide half of said assembly is attached in accordance with the method of

67.1 attachment described in claim 3 comprising having the guide "loosely discretely [directly], axially-

67.2 rotatably, girdling so as free from axially-rotatably-engaging the said tool's shank, the shank being

67.3 used as axis for the guide's rotation by running perpendicularly through the guide, the guide

67.4 linearly retained in the guide's location on the shank, the location being adjacent-in-line-forward

67.5 the drive wheel half the assembly, which also rings the shank, the guide thereby being nearer the

67.6 shank's work end than the wheel, the guide being as aforesaid girdling, also being [of the tool and

68 separate the drive-wheel to result in the guide's being freely,] discretely [separately able] independently

69 free-to-be-spun [spin,] unlimited in distance and/or direction [, including] relative [both] the driver's

69.1 shank [and drive-wheel,] as axis for the spin and relative the assembly's drive-wheel as a separate

69.2 utilized and functioning half of the assembly, the attachment being by having the shank inserted

70 perpendicularly through a bore, the bore larger in diameter than the shank and piercing through

70.1 the guide", does loosely girdle [girdles] the shank as by manner of having the guide loosely-

71 discretely girdling upon another component inserted through the bore through [the] said guide, the

72 other component being in turn ringing to encircle the said shank, the shank being concentric both

72.1 the other component and guide respectively, in turn, at the same location lengthwise relative the

72.2 guide, the guide thus loosely discretely girdling-the-shank by way of loosely discretely girdling the

72.3 other component.

ABSTRACT

A second handle assembly used on a driver-tool, the tool having a handle and shank extending perpendicularly from the handle, the assembly attached by prescribed method, location fixed upon, relative the shank, and having separate shaped halves, one discrete half being held by, guided to against work by, serving to position rotatable about the shank, a one hand-portion of a user/operator's hand which positioned, positions a second portion of the hand free to orbit, grasp, hold, and release the assembly's other half, the hand's second portion as positioned used for improving ratcheting, spinning the other half-assembly spinning the shank, and acting as clutch releasing the shank to move easily within the grasp thus enhancing an alternating two handed continuous spinning of the shank. The assembly having halves shaped and located, offers as platform to support installation of means equalizing ability of one hand, gripping from positioned along side the tool, to spin the tool's shank, with ability of an other hand spinning the shank from positioned gripping on tool's rear. The assembly comprises a slip-ring-type-hand-held-guide**[, first]** half **[assembly]**, attached girdling the tool's shank loosely thereby discretely independently, freely-**[**, **separately,]**able-to-be-spun **[spin,]** unlimited in direction relative the shank as axis; and a hand-operated-drive-wheel, other **[half]** assembly half, attached separately adjacent in line rearward of the guide, forward of the driver-handle, and girdling while engaging the shank, thereby the shank is spun **[spins]** with the wheel's spin but the guide spins separate.

FIG. 1 Exploded view of the gripwheel driver assembly illustrating one of the manners of having the guide half of the assembly spin freely relative, while girdling upon[,] a shank used as axil, the manner being through spinning freely as immediate [immediately] upon the shank by way of the shank being inserted through a bore piercing through the guide, the specific means used to effect 6rotating freely as such being by having the guide rotationallly unengaged to the shank 7in amy way

FIG. 2 Exploded view of the gripwheel driver assembly illustrating one of two manners of having the guide half of the assembly spin freely relative, while girdling upon[,] a shank used as axil, the manner being through spinning freely [as] upon another component ringing the shank by way of the shank being inserted through a bore that pierces [piercing] through the other component, the other component piercing through a bore piercing through the guide, the specific means used to effect rotating freely as such being by having the guide rotationally unengaged to the shank in amy way

FIG. 3 Gripwheel driver assembly as assembled

FIG. 4 Cross section of a gripwheel driver assembly on a driver tool, the drive-wheel half of the assembly shown engaging a shank by direct manner

FIG. 5A Cross section of a gripwheel driver assembly on a driver tool, the drive-wheel of the assembly shown engaging a shank by manner of a drive-train

FIG. 5b Partial-cross-section side view of the rear-driver-handle-fore-portion 25 that is depicted in the FIG. 5A front view but with the cutaway portion depicted in phantom

FIG. 6 Gripwheel driver assembly on a driver tool, both manners of engaging the assembly's drive wheel to a driver's shank are shown illustrated in phantom, one manner being as directly fixed to the shank, the other way being through linkage using a drive train, the assembly itself remaining the same

FIG. 7 Gripwheel driver assembly on driver tool, the tool's work end and operating end revealed

FIG. 8 Gripwheel driver assembly bottom plan perspective view revealing the drive-wheel's internal face

FIG. 9 Gripwheel driver assembly top plan perspective view revealing a bore through the slip ring type hand-held-guide which would be used to have the guide loosely girdling a driver's shank

FIG. 10 Side plan exploded view revealing the slip ring type hand-held-guide being slipped into place loosely girdling a driver's shank

FIG. 11 Side plan view of a preferred type driver-tool of the genre to which a gripwheel driver assembly would be attached

FIG. 12 Recommended sequence of hand operations for utilization of the gripwheel driver assembly as mounted on a driver tool

13 Slip ring type hand-held-guide

14 Hand operated drive-wheel

15a Engaging by being fixed upon, one of the two manners of engaging, the specific means illustrated being ridges to be press fitted onto [upon] thereby gripping [upon] a surface

15b The drive-wheel's fixed engagement upon the driving-gear by having the wheel's internal face fixed to one side of the driving-gear

15c Driven gear's fixed engagement upon the shank through girdling fixed to [upon] the shank

15D Engaging through linkage by way of a drive train, one of the two

manners of engaging, the specific means illustrated being a geared internal-drive train to equalize the ability of one hand[,] positioned on side of a driver-tool, to spin a handle [on the tool], the handle being the gripwheel assembly; with the ability of the other hand[,] as positioned on rear of the tool, to spin an other handle on the tool, the handle being the tool's conventional handle

16 Retaining ring

17 Retaining ring different from 16

18 Drive-wheel hub

20 Driving-gear

21 Idler-gear

22 [Second-idler-gear] Step-up-gear

23 Driven-gear

24 Bilateral repeat of gearing arrangement

25 Driver handle's fore-portion (the rear-driver-handle fore-portion, the

fore-portion of a driver's main handle)

26 Ratchet direction setting means

27 Driver's handle (rear driver handle, the driver's main handle)

28 Work end of driver tool, work end of the driver's shank (free end of the [s] shank)

29 Operating end of driver tool, operating end of the driver's handle (operating end of the rear driver handle, the driver's main handle)

30 Bore in slip ring type hand-held-guide enabling guide to girdle free to rotate relative a shank

31 A Bore through hub and drive-wheel which can be used to enable hub and drive-wheel to girdle, engaged and fixed, upon a shank

32 Drive-wheel's internal face

33 Driver's shank

34 External face of drive-wheel that is to face the work end of a tool

35 Rear face of the slip ring type hand-held-guide that is to face the drive- wheel

36 Hand one of the operator used on gripwheel

37 Hand two of the operator used on driver's handle (the rear driver handle, the driver's main handle)

38 First portion of hand one which continuously holds the slip ring type hand-held-guide

39 Second portion of hand one, not used on slip ring type hand-held-guide, but used to operate the drive-wheel

40 Housing of the driver-handle's fore-portion (the housing of the rear driver handle, the driver's main handle)

41 Gripwheel driver assembly

REMARKS

As the original drawing of the invention did not seem to illustrate the device fully, in clear enough fashion to convey its nature, I have included along with the application a revision of the old drawings, the changes illustrated in red ink, plus have included some new drawings. Additionally the term list needed to be revised to match the drawings, therefore I have included the new term list.

Some functional or operational language is necessary in describing the structure of the invention due to the nature of the invention; the invention is a handle utilized by a hand and could, in a sense, be considered an artificial extension of a user's hand. The parameters governing the device's structural dimensions are inextricably intertwined with the fact that the invention is a hand utilized device and therefore must be physically within the capability of an average human hand to utilize the device.

The device was not anticipated by Eggert et al'193 due to the fact his device is "a cylindrical reversing member disposed adjacent to the working end of the handle coaxially with the bore for rotation relative to the shank and coupled to the ratchet mechanism for shifting between the forward and reverse ratcheting modes,"claim 1, while my [is] device is different, being a handle used as a combination drive means and guide. Eggert does limit his device to having "a cylindrical spinner fixed to the shank coaxially therewith and having a maximum outer radius approximately the same as the predetermined radius, said reversing member being disposed between said spinner and the working end of the handle."claim9, and the spinner corresponds to the drive-wheel component of my device, but the spinner is merely a further limitation of Eggert's device and not

the device itself, plus the drive-wheel of my device is merely a part of my device and not my complete device. The Eggert device fails to anticipate my device by not having a slip ring type hand-held-guide which would be located girdling the shank adjacent ahead of the spinner nearer the tool's work end than the spinner. Therefore, as a wheel is part of an automobile but would not anticipate the automobile, the Eggert device doesn't anticipate the subject matter of my device as a whole, a handle assemble combining a driver-shank's drive- means with a slip ring type hand-held-guide.

The Martin'624 device includes "ratchet means in said body at the other end surface thereof"claim 1, my device does not, however Martin's device has "and having drive means engageable with the other end of the shaft to rotate the shaft,"claim 1, my device does, but Martin's device has "said ratchet means including means extending beyond said other end surface of said body for manipulation of the ratchet means to enable selective rotation of the shaft in either of two directions, said other end surface of said body having a pair of spaced sockets therein; a tool adapter having opposite legs releasably received in the sockets in said body" claim 1, my device does not. And Martin further limits his device to " A hand operated rotary tool as in claim 2, wherein said body comprises two parts, said shaft being fixed to one of said body parts and rotatable relative to the other body part, said ratchet means being mounted in said other body part and selectively engageable with said other body part to effect rotation of the shaft in selected opposite directions depending on the adjustment of the ratchet means."claim 3. As claim 3 reveals, one half of Martin's device engages the shank by being fixed to the shank but the other half of Martin's device also engages the shank by way of an intrinsic ratchet mechanism. Martin's device has one body part which corresponds to the drive-wheel of my device by being fixed to the shank to engage the shank but Martin's device has no slip ring type hand-held-guide discretely freely rotatable unlimited in distance or direction relative the shank and other body parts, which if

included with the Martin device would be placed girdling the shank ahead of, closer to the shank's work end, than Martin's body parts. The Martin device doesn't anticipate the subject matter of my device as a whole and therefore does not anticipate my device.

Respectfully submitted,

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